

I Claim:

1. A bottom-supported offshore structure, comprising:

a buoyant hull;

a plurality of legs engaged with the hull for supporting the hull when the hull is in an operational condition; and

a mat secured to lower portions of the legs, said mat having sufficient buoyancy to facilitate floating of the hull when the structure is in transit, while facilitating lowering of the mat to a seabed without assistance of a ballasting means.

2. The structure of Claim 1, wherein said mat comprises a plurality of hollow mat-forming members, said hollow members defining a central opening in the mat.

3. The structure of Claim 2, wherein said mat has a pre-determined surface footprint, and wherein said central opening occupies a substantial portion of said surface footprint.

4. The structure of Claim 2, wherein said hull has a bottom portion sized and shaped to extend into the central opening formed in the mat.

5. The structure of Claim 1, wherein said mat has a surface footprint sufficient to ensure stability of the structure when the mat is embedded into the seabed.

6. A method of positioning an offshore structure in a selected location for conducting exploratory operations, comprising the steps of:

providing a buoyant hull, a plurality of legs engaged with the hull for supporting the hull when the hull is in an operational condition, and a mat secured to lower portions of the legs, said mat having a central opening for accommodating a bottom portion of the hull when the offshore structure is in transit;

lowering the legs and the mat toward a bottom of a body of water without assistance of a ballasting means; and

causing said mat to engage the bottom of the body of water, thereby supporting the structure in the selected location.

7. The method of Claim 6, wherein said mat has a pre-determined footprint and wherein said central opening occupies a substantial portion of said footprint.
8. The method of Claim 6, wherein said mat has a surface footprint sufficient to ensure stability of the structure when the mat is embedded into the seabed.
9. The method of Claim 6, wherein said mat comprises a plurality of hollow mat-forming members, said hollow members defining the central opening in the mat.
10. The method of Claim 6, wherein said mat provides sufficient buoyancy to facilitate floating of the offshore structure in shallow waters.